eter of abdomen, when fresh, about 0.09; that of the male narrowly fusiform—of the female cylindrical. Alar expanse, 0.80. The primaries cleft one-third of the distance from outer margin to base. Secondaries trifid, first cleft extending two-thirds from outer edge to base; second cleft from margin to base. Color of primaries ashy-buff, somewhat variable in shade, with a brownish hue toward the tips. At the angle of the fissure is a small, but distinct round, black, or fuscous spot.

Secondaries yellowish drab color, with a peculiar silken lustre and texture. Ciliæ concolorous with general surface. Under surfaces of both primaries and secondaries lustrous ashy-brown.

Thorax cream-white in some specimens, with three faint longitudinal stripes of pale brown.

Face, back of head and neck pale brown, apex cream-white. Palpi short and sub-cylindrical, with an obscure notch near the tip—buff, with outer border fuscous, especially at tips. Antennæ with very short pubescence, of a buff color, faintly annulated with pale brown. Eyes varying from olive-green to dull black. Fore and middle legs cream-white, with fuscous shadings on under side. Tibiæ of fore legs thickened at lower end. Hind legs cream-white, tibiæ cylindrical, first pair of spurs slightly unequal. Abdomen distinctly striped with fine, dull-brown, longitudinal lines on cream-white ground.

This species breeds on the Iron weed (*Vernonia noveboracensis*). It is double-brooded; the spring brood feeding on the tender terminal leaves, while the autumn brood feeds almost exclusively on the flowers. The larva spins no web until ready to change; nor does it roll the leaves, or bore into the flowers; but may be found extended openly on the surface of the leaves or flowers. The eggs are deposited singly. They are spherical, of a greenish white color, and about 0.02 in diameter, with a smooth, glossy surface.

THE MINOR AMBROSIA PLUME—*Œdematophorus ambrosiae*, n. sp.

Larva: Length, 0.35; diameter, 0.09. Form depressed. Color pale greenish gray, with very characteristic dark markings and lateral tufts of long, white, silken hairs. Head small, light brown, corneous, retractile. Segment 1 with a dilated, partially free, shield-like collar covering top and projecting over the head. The ornamentation of this collar consists of five central minute brown dots, with four still smaller black ones on each side, from each of which proceeds a short, curved bristle. The projecting edges are fringed with soft, light hairs. Segments 2 and 3, gradually broadening backward, ornamented on dorsum with two oblong, pale-brown spots on either side of a triangle of very minute black dots, and having a larger black dot on each outer side. Two short bristles arise from each of the more conspicuous spots. Abdominal segments, each with four, somewhat elevated, brown spots, from which proceed single, short, backward-curving bristles. Between the posterior pair of brown spots are two smaller black ones, each of which forms the base of a very short clubbed piliferous process, which turns backward, resting flat upon the surface.

The stigmata are annulated with black, and obliquely above and forward of each are two small brown dots. The lateral tufts are below the stigmata, and each is composed of from seven to nine long hairs, which, under the lens, are remotely pectinate. A little above and back of each of these tufts is a semicircle of fine, scale-like bristles. The prolegs are very short.

Pupa: Length, 0.25. Swollen and blunt anteriorly. Color pale fulvous, with a roseate hue on dorsum. Dorsal surface beset with tufts of dingy hairs, with a lateral fringe of single straight hairs, which serve to secure it more firmly to the mat of silk upon which it rests. Dorsum marked, near the head, with two large dull-brown spots, and an indistinct longitudinal stripe of same color on the abdomen. On either side of the thorax is a small, velvety dark brown dot.

Imago: Length, 0.33; alar expanse, 0.55. Ground color of primaries pale ochreous-cinereous, with an irregular intermixture of fuscous scales. On the costa of the outer third are two distinct dark-brown longitudinal marks, with a less strictly defined one at the angle of the fissure. Apex darkly shaded, the dark brown color predominating in the ciliæ of the lower edge of the superior division. Secondaries lustrous cinereous, with faint purplish reflections. Upper fissure extending two-thirds from apex to base; lower fissure from outer edge to base. Face, neck and palpi tawny, the latter small, cylindrical. Antennæ cinereous, obscurely ciliated with brown. Eyes dull olive-brown. Thorax dingy cream-white. Anterior and middle legs cinereous, with fuscous shadings; tibiæ slightly enlarged at lower ends, spurs prominent. Posterior legs cream color, with brown spots at the juncture of the spurs; tarsal joints also annulated with brown. Spurs nearly equal, darker beneath. Abdomen cylindrical, or slightly fusiform; joints fringed at posterior edges with elavate scales.

This pretty little species is rather rare in the vicinity of St. Louis; but more abundant further South.

It feeds on the Rag-weed (*Ambrosia artemisiæfolia*), and I have only found it late in the season.

I have distinguished it as the "*Minor* Ambrosia Plume," because Zeller's *inquinatus*—a somewhat larger, though very similar species—feeds on the same plant.

THE COLEOPTEROUS PARASITES OF THE COMMON HICKORY (Carya tomentosa).

BY JOHN L. LECONTE, M. D.*

During the past two years some hickory trees on the country-seat of a friend, situated near Philadelphia, became diseased to such an extent that they were cut down

* Read before the Entomological Club of the A. A. A. S.

and converted into fire-wood. Finding them both in trunk and twig much perforated by the burrows of insects, he kindly sent me some small bundles of twigs and branches of ¾ inch diameter and less, which I placed in boxes, and occasionally moistened.

Most of the Coleoptera mentioned in the subjoined list were hatched from these twigs, but I have added to those developed in my library the names of some others previously known to me as infesting the same tree; these are marked with an asterisk.

The size of this list, numbering 24 species, several of which are rarely found by collectors, and two of which are still undescribed, indicates the large addition to our knowledge of forest pests which may be made by very simple means.

My object in publishing it is to excite some interest among students to pursue this easy method of adding to their collections, and, at the same time, of furnishing information which will soon be of use. I am also not without hope that the Commission employed by the Government to devise means for protecting the forestry of the country may be induced to furnish to scientific men not thus employed, specimens which may lead to the identification of the tree parasites. Such identification of species is, of course, a pre-requisite for the devising of rational means for repressing the injuries done by these insects.

I addressed the Club briefly on this subject last year, and I am glad that what I then said has been supplemented by some practical instructions from Mr. C. G. Siewers,* Newport, Ky., indicating convenient methods of making these observations.

Though I have not yet received any lists of species thus obtained from our forest trees, and but few specimens for determination, I cannot believe that in a country so eminently given to 'practical' pursuits, the importance of this subject will continue to remain unrecognized. I hope that by the time the Commission on Forestry, appended to the Department of Agriculture, is ready to make a final report, some competent person, albeit not receiving government recognition in an official capacity, may be prepared voluntarily to furnish a list of forest insect-pests.

Without such an appendix, any report made by that Commission will be conspicuously imperfect; the list should contain the names of at least the most easily collected and most destructive parasites of each one of our valuable forest trees, with the time of appearance, and the length of period of evolution.

List of Species.

Lyctus striatus.*
Anthaxia viridifrons, April 10th.
Agrilus egenus, April 21st.
———, probably n. sp., April 8th.
Phyllobænus dislocatus.
Chariessa pilosa, April 16th.
Sinoxylon basillare.
Heterachthes quadrimaculatus.
Phyton pallidum, May 20th.
Molorchus bimaculatus.
Cyllene picta.*
Neoclytus erythrocephalus.
Tillomorpha geminata.
Acanthoderes quadrigibbus.
Liopus cinereus, April 24th.
Ecyrus dasycerus, April 21st.
Saperda discoidea.
Oncideres cingulatus.
Dysphaga tenuipes* (fide Haldeman).
Tribolium, n. sp., March.
Læmosaccus plagiatus, April and August.
Xyleborus celsus.
Thysanoës fimbricornis, April and May.
Chramesus hicoriæ, April and May.

* Canadian Entomologist, 1880, 138.

FOOD HABITS OF THE LONGICORN BEETLES OR WOOD BORERS.

BY THE EDITOR.

Among the vast number of insects injurious to our forests, shade and fruit trees, none hold a more prominent position than the Longhorns or Longicorns (*Cerambycidæ*). The larvæ or grubs of these beetles bore into the wood of various trees, shrubs and ligneous plants, some species confining themselves to one species of tree, while others take a wider range and attack several, or work indiscriminately in all the species of a genus.